

# **EXHIBIT**

## **A**

Curriculum Vitae for Peter J. Hauser, Ph.D.

Peter J. Hauser, Ph.D.  
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Raleigh, NC 27606  
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Education

B.S. Chemistry, 1969, North Carolina State University  
Ph.D. Chemistry, 1974, North Carolina State University

Professional Experience

Interim Department Head; 12/2014 to 1/2017; Textile Engineering, Chemistry & Science Department, NCSU, Raleigh, NC  
Professor; 8/2005 to 7/2017; Textile Engineering, Chemistry & Science Department, NCSU, Raleigh, NC  
Director of Graduate Programs and Associate Department Head; 8/2004 to 1/2012; Textile Engineering, Chemistry & Science Department, NCSU, Raleigh, NC  
Associate Professor; 8/1997 to 8/2005; Textile Engineering, Chemistry & Science Department, NCSU, Raleigh, NC  
Sr. Research Chemist; 11/1987 to 7/1997; The Virkler Company, Charlotte, NC  
Manager, Chemical Development Laboratory; 1/1985 to 11/1987; Burlington Ind., Greensboro, NC  
Research Chemist; 9/1973 to 1/1985; Milliken Research Corporation, Spartanburg, SC

Professional Society Memberships

American Chemical Society  
American Association of Textile Chemists and Colorists (AATCC)  
Society of Dyers and Colourists  
The Textile Institute

Courses Taught

Textile Wet Processing (preparation, coloration, finishing), introductory and advanced undergraduate sections  
Textile Chemistry, undergraduate and graduate sections  
Applied Polymer Chemistry, graduate sections  
Textile Material Science, undergraduate laboratory sections

Research Interests

Textile treatments to reduce costs, energy usage and pollution associated with textile wet processing. Chemicals for textile wet processing. Improved bleaching with hydrogen peroxide. Plasma treatment of textiles. High performance chemical finishes for enhanced value textiles. Mathematical modeling of textile wet processes. Indigo dyeing and denim garment wet processing.

Honors

2013-2014 President, AATCC  
2017 AATCC Olney Medal for outstanding achievement in Textile Chemistry

Curriculum Vitae for Peter J. Hauser, Ph.D.

Graduate Student and Post-doc History (1997-2017)

Thirty one MS and twenty one PhD projects directed.

Twenty post-docs supervised.

Consulting

Technical consultant for textile wet processing

Experienced expert witness for patent litigation

Publications

- 1) Hauser, P.J., et al., *Theor. Chim. Acta*, **24**, 78-88 (1972).
- 2) Schreiner, A.F., et al., *Inorg. Chem.*, **11**, 880-8 (1972).
- 3) Schreiner, A.F. and Hauser, P.J., *Inorg. Chem.*, **11**, 2706-13 (1972).
- 4) Hauser, P.J., et al., *Inorg. Chem.*, **12**, 1347-52 (1973).
- 5) Hauser, P.J., et al., *Theor. Chim. Acta*, **32**, 87-91 (1973).
- 6) Evans, R.S., et al., *Inorg. Chem.*, **13**, 901-5 (1974).
- 7) Hauser, P.J., et al., *Inorg. Chem.*, **13**, 1925-7 (1974).
- 8) Evans, R.S., et al., *Inorg. Chem.*, **13**, 2185-92 (1974).
- 9) Hauser, P.J. and Schreiner, A.F., *Inorg. Chim. Acta*, **9**, 113-15 (1974).
- 10) Evans, R.S., et al., *Inorg. Chem.*, **14**, 163-70 (1975).
- 11) Hauser, P.J. and A. Bairathi, "New System for Improved Indigo Dyeing", *American Dyestuff Reporter*, **85**(8), 55-57, 59 (1996).
- 12) Hauser, P.J. and J.N. Etters, "Saponification of Polyester Fiber: Optimizing Process Parameters for Denier Reduction", *American Dyestuff Reporter*, **86**(9), 15-18 (1997).
- 13) Hauser, P.J. and J.C. Montagnino, "Alkalinity Studies of Commercial Denim Fabrics", *American Dyestuff Reporter*, **87**(5), 24-29 (1998).
- 14) Hauser, P.J., "Innovative Wet Processing Solutions", *America's Textiles International*, **28**(1), 66-67 (1999).
- 15) Tabb, A.H., and P.J. Hauser, "Effect of Cationic Pretreatment on Pigment Printing of Cotton Fabric", *Textile Chemist and Colorist*, **32**(2), 30-33 (2000).
- 16) Hauser, P.J., "ITMA-99 Finishing Review", *Textile Progress*, **30**(1/2), 84-89 (2000).
- 17) Hauser, P.J., "Reducing Pollution and Energy Requirements in Cotton Dyeing", *Textile Chemist and Colorist and American Dyestuff Reporter*, **32**(6), 44-48, (2000).
- 18) Hauser, P.J., "Cationic Pretreatment of Cotton", *America's Textile Industries*, **29** (10), 42-46 (2000).
- 19) Hauser, P.J. and J.T. Merritt, "Improved Determination of Indigo on Fibers or Fabrics", *Textile Chemist and Colorist and American Dyestuff Reporter*, **32**(12), 33-35, (2000).
- 20) Merritt, J. T., III, Beck, K. R., Smith, C. B., Hauser, P. J., and Jasper, W. J., "Determination of Indigo in Dyebaths by Flow Injection Analysis and Redox Titrations", *AATCC Review*, **1**(4), 53-57, April 2001.
- 21) Mock, G. N.; P.J. Hauser, "Finishing First", *Textile industries*, **30**(6), pp.62, 64-69, (2001).
- 22) Hauser, P.J., "Quick Turns: Finishing Trends", *Textile Industries*, **30**(9), 48 – 50 (2001).
- 23) McCord, M.G., Y. J. Hwang, L.K. Canup, P.J. Hauser, Y. Qiu, J. Cuomo, O. Hankins, and M.A. Bourham, "Modification of Nylon and Polypropylene Fabrics with Atmospheric Pressure Plasmas", *Textile Research Journal*, **72**(6), 491-498 (2002).
- 24) Hauser, P.J. and A.H. Tabb, "Improving the Environmental and Economic Aspects of Dyeing Cotton", *Coloration Technology*, **117**(5), 282-288 (2001).

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- 25) Hauser, P.J. and A. H. Tabba, "Dyeing Cationic Cotton With Fiber Reactive Dyes: Effect Of Reactive Chemistries", *AATCC Review*, **2**(5), 53-56, May 2002.
- 26) Hauser, P.J., "Plasma Treatment of Textiles: Changing Fiber Surfaces", *Journal of Textile Apparel, Technology, and Management*, **2**(2), Spring 2002.
- 27) Draper, S.L., K.R. Beck, C.B. Smith, and P.J. Hauser, "Characterization of the Dyeing Behavior of Cationic Cotton with Direct Dyes", *AATCC Review*, **2**(10), 24-27, October 2002.
- 28) Kanik, M., and P.J. Hauser, "Printing of Cationised Cotton with Reactive Dyes", *Coloration Technology*, **118**(6), 300-306(2002).
- 29) Hauser, P.J. and M. Kanik, "Printing of Cationized Cotton with Acid Dyes", *AATCC Review*, **3**(3), 25-28(2003).
- 30) Cannon, K.M. and P.J. Hauser, "Color Assessment of Cationic Cotton Dyed with Fiber Reactive Dyes", *AATCC Review*, **3**(5), 21-23, May 2003.
- 31) Schindler, W. and P.J. Hauser, "Chemical Finishing of Textiles: Hand Builders", *International Textile Bulletin*, **49**(2), 68-71, May 2003.
- 32) Kanik M., and P.J. Hauser, "Ink-Jet Printing of Cationized Cotton Using Reactive Inks", *Coloration Technology*, **119**(4), 230-234 (2003).
- 33) Hashem, M., P.J. Hauser and C.B. Smith, "Wrinkle Recovery for Cellulosic Fabric by Means of Ionic Crosslinking", *Textile Research Journal*, **73**(9), 762-766 2003.
- 34) Hauser, P.J., M. Hashem, C.B. Smith, "Ionic Crosslinking of Cotton", *Research Journal of Textile and Apparel*, **7**(1), 1-7, May 2003.
- 35) Draper, S.L., K.R. Beck, C.B. Smith, and P.J. Hauser, "Characterization of the Dyeing Behavior of Cationic Cotton with Acid Dyes", *AATCC Review*, **3**(8), 51-55, August 2003.
- 36) Schindler, W. and P.J. Hauser, "Chemical Finishing of Textiles: Soft Handle Finish", *International Textile Bulletin*, **49**(4), 72-79, August 2003.
- 37) Morris, H. and P.J. Hauser, "The Effects of a Cationic Reagent on Typical Finishes", *AATCC Review*, **3**(11), 17-19, November 2003.
- 38) Hauser, P.J., "ITMA 2003: Chemical Finishing", *Journal of Textile and Apparel, Technology and Management*, **3**(3), Fall 2003.
- 39) Hauser, P.J., "ITMA 2003: Preparation", *Journal of Textile and Apparel, Technology and Management*, **3**(3), Fall 2003.
- 40) Hashem, M., P.J. Hauser and C.B. Smith, "Reaction Efficiency for Cellulosic Cationization using 3-Chloro-2-Hydroxypropyl Trimethyl Ammonium Chloride", *Textile Research Journal*, **73**(11), 1017-1023 (2003).
- 41) Kanik, M., and P.J. Hauser, "Printing of Cationised Cotton with Direct Dyes", *Textile Research Journal*, **74**(1), 43-50 (2004).
- 42) Lee, M.H., H.S. Park, K.J. Yoon, and P.J. Hauser, "Enhancement of the Durability of Linen-like property of Low Temperature Mercerized Cotton", *Textile Research Journal*, **74**(2), 146-154 (2004).
- 43) Hauser, P.J., M. Tariq, and J. Rajan, "Dye Fixation Properties of an Antimicrobial Finish", *AATCC Review*, **4**(4), 17-20, April 2004.
- 44) Mock, G.N., and P.J. Hauser, "ITMA 2003: Technology - Dyeing, Printing & Finishing", *Textile World*, **154**(3), 24,26, 28-34, March 2004.
- 45) El-Ola, S.M.A. R. Kotek, and P.J. Hauser, "Unusual polymerization of 3-(trimethoxysilyl)-propyldimethyloctadecyl ammonium chloride on PET substrates", *Polymer*, **45**(10), 3125-3225 (2004).

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- 46) Lim, S.H., N.C. Gürsoy, P.J. Hauser and D. Hinks, "Performance of a Cationic Bleach Activator in a Hot Peroxide Bleaching System", *Coloration Technology*, **120**(3), 114-118 (2004).
- 47) Hauser, P., Smith, C. and Hashem, M. "Ionic Crosslinking of Cotton". *Autex Research Journal*, **4**(2), 95-100. (2004).
- 48) Kanik, M., P.J. Hauser, L. Parrillo-Chapman, and A. Donaldson, "Effect of Cationization on Ink Jet Printing Properties of Cotton Fabrics", *AATCC Review*, **4**(6), 22-25 (2004).
- 49) Gürsoy, N.C., A. El-Shafei, P.J. Hauser, and D. Hinks, "Cationic Bleach Activators for Improving Cotton Bleaching", *AATCC Review*, **4**(8), 37-40 (2004).
- 50) Wang, D.; Mousavi, P.; Grant, C. S.; Hauser, P.J.; and Oxenham, W.; "A Novel Testing System for Evaluating the Thermal Stability of Polyol Ester Lubricants", *Industrial & Engineering Chemistry Research*, **43**(21), 6638-6646, (2004).
- 51) Gürsoy, N.C., S. Lim, D. Hinks, and P.J. Hauser, "Evaluation of Hydrogen Peroxide Bleaching with Cationic Bleach Activators in a Cold Pad-Batch Process", *Textile Research Journal*, **74**(11), 970-976 (2004).
- 52) Lee, J.J., S. Lim, P.J. Hauser, and D. Hinks, "Stability of a Novel Cationic Bleach Activator in Aqueous Solution", *Coloration Technology*, **121**(1), 37-40 (2005).
- 53) Lim, S.H., J.J. Lee, D. Hinks, and P.J. Hauser, "Bleaching of cotton with activated peroxide systems", *Coloration Technology*, **121**(2), 89-95 (2005).
- 54) Mousavi, P., D. Wang, C.S. Grant, W. Oxenham, and P.J. Hauser, "Measuring Thermal Degradation of a Polyol Ester Lubricant in Liquid Phase", *Industrial & Engineering Chemistry Research*, **44**(15), 5455-5464 (2005).
- 55) Hauser, P.J. and R.P. Slopek, "Energy, Water and Pollution Reductions with Fiber Reactive Dyes and Cationized Cotton", *Colourage*, **52**(9), 61-66 (2005).
- 56) Wang D., P. Mousavi, P.J. Hauser, W. Oxenham and C.S. Grant, "Quartz Crystal Microbalance in elevated Temperature Viscous Liquids: Temperature Effect Compensation and Lubricant Degradation Monitoring", *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **268**(1-3), 30-39 (2005).
- 57) Hauser, P.J., "Advances and Trends in Textile Wet Processing Chemicals", *Journal of Textile and Apparel, Technology and Management*, **5**(1), Fall 2005.
- 58) Bilgen M., P.J. Hauser, and B. Smith, "Ionic Crosslinking of Cellulose", *Indian Journal of Fibre & Textile Research*, **31**(3), 363-368 September 2006.
- 59) Lavric, P.K., F. Kovac, P.F. Tavcer, P.J. Hauser, and D. Hinks, "Enhanced PAA bleaching of cotton by incorporating a cationic bleach activator", *Coloration Technology*, **123**(4), 230-236 (2007).
- 60) Saunders, P., P.J. Hauser and D. Hinks, "Efficient Decolorization of Dye Bath Wastewater using a Novel Cationic Bleach Activator/Peroxide System", *AATCC Review*, **7**(10), 34-38, October 2007.
- 61) Vargantwar, P.H., C.B., Smith, and P.J. Hauser, "Preparation of Zwitterionic Cotton Fabrics and Their Wrinkle Resistant Performance", *AATCC Review*, **7**(12), 42-46, December 2007.
- 62) Hauser, P.J., "ITMA Technology: Dyeing, Printing & Finishing", *Textile World*, **157**(6), 36-43, November/December 2007.
- 63) Hauser, P.J. and A. Gudac, "Effects of Alkaline Treatments on Physical and Dyeing Properties of Cotton Woven Fabrics", *AATCC Review*, **8**(9), 45-48, September 2008.
- 64) Hashem, M., R. Refaie, K. Goli, B. Smith, and P.J. Hauser, "Enhancement of Wrinkle Free Properties of Carboxymethylated Cotton Fabric via Ionic Crosslinking with Poly(vinylpyrrolidone)", *Journal of Industrial Textiles*, **39**(1), 57-80, July 2009.

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- 65) Hashem, M.M., N.A. Ibrahim, R. Refaie, A. El-Shafie, P.J. Hauser, "An Eco-Friendly Novel Approach for Attaining Wrinkle-Free/Soft-Hand Cotton Fabric", *Journal of Carbohydrate Polymers*, **78**(4), 690-703 (2009).
- 66) Ceria, A. and P.J. Hauser, "Atmospheric plasma treatment to improve durability of a water and oil repellent finishing for acrylic fabrics", *Surface and Coatings Technology*, **204**, 1535-1541 (2010).
- 67) Wang, Q. and P.J. Hauser, "New characterization of layer-by-layer self-assembly deposition of polyelectrolytes on cotton fabric", *Cellulose*, **16**, 1123-131 (2009).
- 68) Gürsoy, N. C., and P.J. Hauser, "An Investigation of Dyeing Properties of Bleached Knitted Cotton Fabrics using Novel Cationic Bleaching Activators", *Tekstil ve Konfesksiyon (Journal of Textile and Apparel)*, **2**, 155-161 (2010).
- 69) Lee, J.J., D. Hinks, S. Lim, and P.J. Hauser, "Hydrolytic stability of a series of lactam-based cationic bleach activators and their impact on cellulose peroxide bleaching", *Cellulose*, **17**, 671-678(2010).
- 70) Hauser, P.J. and Q. Wang, "Developing a novel UV protection process for cotton based on layer-by-layer self-assembly", *Carbohydrate Polymers*, **81**, 491-496 (2010).
- 71) Mousavi, P., P.J. Hauser, D. Wang, C.S. Grant, and W. Oxenham, "Effect of Additive Compounds on Thermal Stability of Fiber Finishes", *Textile Research Journal*, published online 27 July 2010 DOI: 10.1177/0040517510374918
- 72) Wang, Z, P. J. Hauser, J. Laine and O.J. Rojas, "Multilayers of low charge density polyelectrolytes on thin films of carboxymethylated and cationic cellulose", *Journal of Adhesion Science and Technology*, **25**, 643-660 (2011).
- 73) Hauser, P.J. and A. El-Shafei, "Atmospheric Pressure Plasma Treatments for Repellent Textiles", *AATCC Review*, **11**(1), 70-74 (2011).
- 74) Davis, R. A. El-Shafei, and P.J. Hauser, "Use of Atmospheric Pressure Plasma to Confer Durable Water Repellent Functionality and Antimicrobial Functionality on Cotton/Polyester Blend", *Surface and Coating Technology*, **205** (20), 4791-4797 (2011).
- 75) Nada, A.A., P.J. Hauser and S.M. Hudson, "The Grafting of per-(2, 3, 6-O-allyl)-  $\beta$  Cyclodextrin onto Derivatized Cotton Cellulose via Thermal and Atmospheric Plasma Techniques", *Plasma Chemistry and Plasma Processing*, **31**(4), 605-621 (2011).
- 76) Kale, K., P.J. Hauser, A. El-Shafei and S. Palaskar, "Some Studies on Atmospheric Pressure Glow Discharge of Helium-Oxygen Plasma on Polyester/Cotton Blended Textiles", *Indian Journal of Fibre and Textile Research*, **36**, 137-144, June 2011.
- 76) Xu, C., D. Hinks, A. El-Shafei, P.J. Hauser, M. Li, M. Ankeny, and K. Lee, "Review of bleach activators for environmentally efficient bleaching of textiles", *Proceedings of Textile Bioengineering and Informatics Symposium*, 623-630 (2011).
- 78) Xu, C., D. Hinks, A. El-Shafei, P.J. Hauser, M. Li, M. Ankeny, and K. Lee, "Review of bleach activators for environmentally efficient bleaching of textiles", *Journal of Fiber Bioengineering & Informatics*, **4**(3), 209-219 (2011).
- 79) Hauser, P.J., "ITMA Technology – Dyeing, Printing & Finishing", *Textile World*, November/December, 36-39 (2011).
- 80) Hauser, P.J., "ITMA Technology –Dyeing, Printing & Finishing", *Textile World Asia*, October-November-December, 37-42 (2011).
- 81) Hauser, P.J., "Tecnología de ITMA: Tintura, Estampado y Acabado", *Textiles Panamericanos*, **71**(6), 22-26 (2011).



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- 82) Hauser, P.J. and J.B. Rodie, "Quality Counts", *Textile World*, March/April, 24-25 (2012).
- 83) Hauser, P.J. and J. B. Rodie, "La Calidad Cuenta Como Siempre", *Textiles Panamericanos*, **72**(2), 8-11 (2012).
- 84) Hauser, P.J., "Sustainable Cotton Dyeing", *Advanced Materials Research*, **441**, 1-4 (2012).
- 85) Malshe, P., A. El-Shafei, and P.J. Hauser, "Functional Military Textile: Plasma-Induced Graft Polymerization of DADMAC for Antimicrobial Treatment on Nylon-Cotton Blend Fabric", *Plasma Chemistry and Plasma Processing*, **32**(4), (2012) DOI: **10.1007/s11090-012-9380-1**
- 86) Hauser, P.J., "Dyes and Chemicals at ITMA 2011", *Textile World*, May/June, 26-27 (2012).
- 87) Hauser, P.J., "Colorantes y Productos Químicos en ITMA 2011", *Textiles Panamericanos*, **72**(3), 16-17 (2012).
- 88) Hauser, P.J. and J.B. Rodie, "Quality Counts", *Textile World Asia*, April/May/June, 18-20 (2012).
- 89) Widodo, M., A. El-Shafei and P.J. Hauser, "Surface Nanostructuring of Kevlar Fibers by Atmospheric Pressure Plasma-Induced Graft Polymerization for Multifunctional Protective Clothing", *Journal of Polymer Science Part B: Polymer Physics*, **50**(16), 1165-1172 (2012).
- 90) Mashaly, H.M. and P.J. Hauser, "Cold Pad Batch Cationization and Dyeing of Linen Fabric with Some Reactive Dyes", *Research Journal of Textile and Apparel*, **16**(3), 111-118 (2012).
- 91) Cheema, H., A. El-Shafei, and P. Hauser. "Conferring Flame Retardancy on Cotton Using Novel Halogen-free Flame Retardant Bifunctional Monomers", *Carbohydrate Polymers*, **92**, 885-893 (2013).
- 92) Edwards, B., A. El-Shafei, and P.J. Hauser, "Towards flame retardant cotton fabrics by atmospheric pressure plasma-induced graft polymerization: synthesis and application of novel phosphoramidate monomers", *Surface and Coatings Technology*, **209**, 73-79, 2012.
- 93) Malshe, P., M. Mazloupour, A. El-Shafei, and P.J. Hauser, "Multi-Functional Military Textile: Plasma-Induced Graft Polymerization of a C6 fluorocarbon for Repellent Treatment on Nylon-Cotton Blend Fabric", *Surface and Coatings Technology*, **217**, 112-118, 2013.
- 94) Varan, N.Y, N.C. Gursoy, M.W. King, and P.J. Hauser, "Novel Elastomeric Fabrics for Burn Pressure Garments Using Silver Antimicrobial Agents", *Tekstil ve Konfeksiyon*, **23**(1), 38-42, 2013.
- 95) Ramamoorthy, A., A. El-Shafei and P.J. Hauser, "Plasma Induced Graft Polymerization of C6 Fluorocarbons on Cotton Fabrics for Sustainable Finishing Applications", *Plasma Processes and Polymers*, **10** (5), 430-443, 2013.
- 96) Mazloupour, M., P. Malshe, A. El-Shafei and P.J. Hauser, "Conferring Durable Antimicrobial Properties on Nonwoven Polypropylene via Plasma-assisted Graft Polymerization of DADMAC", *Surface and Coatings Technology*, **224**, 1-7, 2013.
- 97) Farrell, M.J. and P.J. Hauser, "Cationic Cotton, Reservations to Reality", *AATCC Review*, **13**(5), 56-63, 2013.
- 98) Fu, S., D. Hinks, and P.J. Hauser, "Ultra-Deep Dyeing of Cotton", *Cellulose*, **20**, 3101-3110, 2013, DOI 10.1007/s10570-013-0081-6

## Curriculum Vitae for Peter J. Hauser, Ph.D.

- 99) Vargantwar, P., and P.J. Hauser, "Novel Treatment for Preparation and Characterization of Carboxymethyl Cellulose", *AATCC Journal of Research*, **1**(1), 1-5, 2014, DOI 10.14504/ajr.1.1.1
- 100) Yuan, H. and P.J. Hauser, "Synthesis of a Bi-functional Cationic Agent and its Application in Cotton Dyeing", *AATCC Journal of Research*, **1**(2), 8-12, 2014, DOI 10.14504/ajr.1.2.4.
- 101) Farrell, M.J., M.A. Ankeny, and P.J. Hauser, "Prediction of recipes for cotton cationization and reactive dyeing to shade match conventionally dyed cotton", *Coloration Technology*, **130**(5), 363-367, 2014, DOI: 10.1111/cote.12101.
- 102) Edwards, B., P.J. Hauser, and A. El-Shafei, "Nonflammable cellulosic substrates by application of novel radiation-curable flame retardant monomers derived from cyclotriphosphazene", *Cellulose*, 2014, DOI 10.1007/s10570-014-0497-7
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- 105) Hauser, P.J., "Innovations in Textile Machinery: Wet Processing", *Textile World*, January/February (2015).
- 106) Fu, S., P.J. Hauser, and D. Hinks, "Sustainable Deep Dyed Cotton", 2015 AATCC Sustainability Symposium Conference Proceedings.
- 107) El-Shafei, A., H. Hany, A. Ramamoorthy, and P.J. Hauser, "Nanolayer Atmospheric Pressure Plasma Graft Polymerization of Durable Repellent Finishes on Cotton", *Journal of Coatings Technology and Research*, **12**(4), 681-691, 2015. DOI: 10.1007/s11998-015-9665-4.
- 108) Fu, S., M. Farrell, P.J. Hauser, and M. Ankeny, "Influence of liquor ratio and amount of dyestuff in producing ultradeep black dyeing using mercerised and cationised cotton", *Coloration Technology*, **132**(3), 232-237, 2016, DOI: 10.1111/cote.12216
- 109) Hauser, P.J., "ITMA 2015 Technology: Wet Processing", *Textile World*, March/April 2016.
- 110) Hauser, P.J., "ITMA 2015 Technology: Wet Processing", *Textile World Asia*, January/February/March 2016.
- 111) Hauser, P.J., "Nuevos Desarrollos en Procesamiento en Húmedo ", *Textiles Panamericanos*, April 2016.
- 112) Jin, X., W. Wang, C. Xiao, L. Bian, and P.J. Hauser, "Improvement of coating durability, interfacial adhesion and compressive strength of UHMWPE fiber/epoxy composite through plasma pre-treatment and polypyrrole coating", *Composites Science and Technology*, **128**, 169-175, 2016.
- 113) Fu, S., M.J. Farrell, P.J. Hauser, D. Hinks, W.J. Jasper, and M.A. Ankeny, "Real-time dyebath monitoring of reactive dyeing on cationized cotton for levelness control: part 1—influence of dye structure, temperature, and addition of soda ash", *Cellulose*, **23**, 3319-3330, 2016. DOI: 10.1007/s10570-016-1008-9.
- 114) Dincmen, G., N. Gursoy, and P.J. Hauser, "Atmospheric Pressure Plasma Treatment of Nylon 6,6 and Polyester Fabrics for Enhancing Antistatic Property of Fabrics", *AATCC Journal of Research*, **3** (4), 36-46, 2016.



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- 115) Rezaei, F., M.D. Dickey, M. Bourham, P.J. Hauser, "Surface modification of PET film via a large area atmospheric pressure plasma: An optical analysis of the plasma and surface characterization of the polymer film", *Surface & Coatings Technology*, November 2016. DOI: 10.1016/j.surfcoat.2016.11.072
- 116) Ramamoorthy, Amsarani; Helmy, Hany; Rajbhandari, Rajeev; Hauser, Peter; El-Shafei, Ahmed, "Plasma Induced Graft Polymerization of Cationic and Fluorocarbon Monomers into Cotton: Enhanced Dyeability, Repellency and Photostability", *Industrial & Engineering Chemistry Research*, **55**(31), 8501-8508, 2016.
- 117) Dincmen, G. N. Gursoy, and P.J. Hauser, "Plasma Induced Graft Polymerization of Three Hydrophilic Monomers on Nylon 6,6 Fabrics for Enhancing Antistatic Property", *Plasma Chemistry and Plasma Processing*, 36, 1377-1391, 2016.

Accepted for publication

- 118) Dincmen, G. N. Gursoy, and P.J. Hauser, "Plasma induced graft polymerization of a fluorocarbon monomer on polyamide 6,6 fabrics", accepted for publication January 2017 by Tekstil ve Konfeksiyon Journal.
- 119) El-Shafei, A., H. Helmy, and P.J. Hauser, "Influence of Atmospheric Plasma-induced Graft Polymerization of DADMAC into Cotton on Dyeing with Acid Dyes", accepted for publication February 16, 2017 by The Journal of the Textile Institute.  
DOI: 10.1080/00405000.2017.1298206
- 120) Rezaei, F., M. Dickey, and P.J. Hauser, "Superhydrophobic/oleophobic Coatings Based on Catalyst Driven Thiol-Epoxy-Acrylate Ternary System", accepted for publication May 2018 by the Journal of Applied Polymer Science.  
DOI: 10.1002/app.20180022

Authored Books

"*Chemical Finishing of Textiles*", Schindler W. and P. Hauser, Woodhead Publishing. Cambridge, 2004, ISBN: 978-1-85573-905-5

Edited Books

"*Advances in Treating Textile Effluent*", Peter J. Hauser (Ed.), InTech, 2011, ISBN: 978-953-307-704-8  
"Textile Dyeing", Peter J. Hauser (Ed.), InTech, 2011, ISBN 978-953-307-565-5

Book chapters

"Chemical Analysis of Fabric Finishes and Performance Related Tests", in "*Chemical Testing of Textiles*", Q. Fan (Ed.), Woodhead Publishing, Cambridge, 2005, ISBN: 978-1-855733-917-8  
"Effect of cationization on ink jet printing properties of cotton fabrics", in "*Digital Printing of Textiles*", H. Ujiie (Ed.), Woodhead Publishing, Cambridge, 2006, ISBN: 978-1-85573-951-2  
"Fabric finishing: pre-treatment/textile wet processing" in "*Textiles and Fashion*", R. Sinclair (Ed.), Woodhead Publishing, Cambridge, 2015, ISBN: 978-1-84569-931-4

Curriculum Vitae for Peter J. Hauser, Ph.D.

United States Patents issued to Peter J. Hauser

<b>4,102,644</b>	Tint Compositions for Nylon...
<b>4,113,721</b>	Water Soluble, Non-polar Solvent Soluble Fugital Tints
<b>4,144,028</b>	Tint Compositions for Nylon...
<b>4,164,392</b>	Textile Materials having Durable Soil Release...
<b>4,732,789</b>	Flame Resistant Cotton Blend Fabrics
<b>4,898,596</b>	Exhaust Process for Aramid Fibers
<b>5,667,533</b>	Heather Dyed Fabrics and Process of Producing Same
<b>7,166,135</b>	Product and Method for Treating Cotton
<b>7,179,779</b>	Cationic Bleach Activator with Enhanced Hydrolytic Stability
<b>7,201,778</b>	Ionic cross-linking of ionic cotton...
<b>10,472,762</b>	Method for incorporating Ultraviolet Protection...
<b>10,676,861</b>	Method for incorporating Ultraviolet Protection...

Research Presentations

- 1) "The Economics of Dyeing Cationic Cotton", EPRI Fiber, Apparel, Carpet and Textile Office Wastewater Committee Meeting, Cliffside, NC, August 20, 1998. Invited presentation.
- 2) "The Economics of Dyeing Cationic Cotton", United States-Asia Environmental Partnership Program, Environmental Exchange Program meeting, Raleigh, NC March 16, 1999. Invited presentation.
- 3) "Use of Statistical Process Controls in the Analytical Laboratory", AATCC Analytical Methods Workshop, Charlotte, NC, December 11, 1998. Invited presentation.
- 4) "Cationic Pretreatments of Cotton", AATCC Garment Wet Processing Symposium, New Orleans, LA, May 13, 1999. Invited presentation.
- 5) "Reducing Pollution and Energy Requirements in Cotton Dyeing", 2<sup>nd</sup> International Textile and Apparel Conference, Rio de Janeiro, Brazil, July 21-23 1999.
- 6) "Critical Review of Finishing Equipment at ITMA 1999", EPRI FACTO Advisory Committee Meeting, Raleigh, NC, September 13, 1999. Invited presentation.
- 7) "Improved Determination of Indigo on Fibers or Fabrics", 1999 AATCC International Conference & Exhibition, Charlotte, NC, October 12-15, 1999.
- 8) "New Technology in Functional Finishes: Cyclodextrins", AATCC Symposium Functional Finishes and High Performance Textiles, Charlotte, NC, January 27-28, 2000. Invited presentation.

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- 9) "Improving The Environmental and Economic Aspects of Cotton Dyeing", Textile Institute's 80<sup>th</sup> World Conference, Manchester, England, April 16-19, 2000.
- 10) "Covalently Bound Cyclodextrin: A New Functional Finish For Cellulosics", 2000 AATCC International Conference & Exhibition, Winston-Salem, NC, September 18-20, 2000.
- 11) "Improved Cotton Dyeing: Using Natural Dyes Without Mordants", Istanbul Textile 2001 Congress, Istanbul, Turkey, April 21 – 22, 2001.
- 12) "Past, Present, and Future Technologies for Modified Cotton", AATCC International Dyeing Symposium, Greenville, SC, May 31 – June 1, 2001. Invited presentation.
- 13) Textile Finishing Tutorial, 2001 AATCC International Conference & Exhibition, Greenville, SC, October 21, 2001. Invited presentation.
- 14) "Dyeing Cationic Cotton with Fiber Reactive Dyes: Effect of Dye Structure", 2001 AATCC International Conference & Exhibition, Greenville, SC, October 23, 2001.
- 15) "Maximizing the Cationization of Cotton with 2,3-Epoxypropyltrimethyl Ammonium Chloride to Enhance Dyeability with Anionic Dyes", 2001 AATCC International Conference & Exhibition, Greenville, SC, October 23, 2001.
- 16) "Troubleshooting for Preparation, Dyeing, and Finishing", 2001 AATCC International Conference & Exhibition, Greenville, SC, October 24 2001. Invited presentation.
- 17) "The Use of Cationized Cotton to Improve the Cotton Dyeing Process", Textile Institute's 82<sup>nd</sup> World Conference, Cairo, Egypt, March 23-27, 2002.
- 18) "Evaluating Thermal Degradation of Textile Finishing Aids Using GC and QCM", National Conference on Environmental Science and Technology, September 8-10, 2002, Greensboro, North Carolina. Presented by Dianxia Wang.
- 19) "Dye Fixation Properties of an Antimicrobial Finish", 2002 AATCC International Conference & Exhibition, Charlotte, NC, October 1-4, 2002.
- 20) "Finishing Cationic Cotton", 1<sup>st</sup> International Textile, Clothing & Design Conference, Dubrovnik, Croatia, October 6-9, 2002.
- 21) "Evaluating Thermal Degradation of Textile Finishing Aids Using GC and QCM", Fiber Finish & Surface Modifier Conference 2002, Greenville, SC, October, 2002. Presented by Paria Mousavi.
- 22) "Monitoring Thermal Stability of Textile Processing Aids using a Quartz Crystal Microbalance", AIChE Annual Meeting, November 3-8, 2002. Indianapolis, Indiana. Presented by Christine Grant.
- 23) "Functional Finishes by Yarn Application", AATCC Yarn Processing Symposium, Pawley's Island, SC, April 25, 2003. Invited presentation.
- 24) "Thermal Degradation of Textile Finishing Aids", ACS 7th Colloid and Surface Science Symposium, Atlanta, GA, June 2003. Presented by Dianxia Wang.
- 25) "Ionic Crosslinking of Cotton", 3<sup>rd</sup> AUTEX Conference, Gdansk, Poland, June 25-27, 2003.
- 26) "Effect of Cationization on Ink Jet Printing Properties of Cotton Fabrics", 2003 AATCC International Conference & Exhibition, Greenville, SC, September 9 - 12, 2003, presented September 10.
- 27) "Cationic Bleach Activators for Improving Cotton Bleaching", 2003 AATCC International Conference & Exhibition, Greenville, SC, September 9 - 12, 2003, presented September 10.

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- 28) "Energy, Water, and Pollution Reduction with Fiber Reactive Dyes and Cationized Cotton", 2003 AATCC International Conference & Exhibition, Greenville, SC, September 9 - 12, 2003, presented September 11.
- 29) "Functional Finishes for Garments", Advancements in Textile and Garment Processing, Miami, FL, December 11-12, 2003, presented December 12. Invited presentation.
- 30) "Application of an Epoxy Reactant to Cotton", Reactive Dyes: A Celebration of 50 Years of Innovation, Manchester, UK, April 14 – 16, 2004, presented April 15. Invited presentation.
- 31) "Bleaching of Cotton with Novel Peroxide Activators", II International Istanbul Textile Congress, Istanbul, Turkey, April 22 – 24, 2004, presented April 23.
- 32) "Novel Bleach Activators", AATCC RA34 Committee Meeting, Research Triangle Park, NC, May 5, 2004. Presented by S.H. Lim.
- 33) "Enhanced Cotton Bleaching With Peracids", Textile Institute's 83<sup>rd</sup> World Conference, Shanghai, China, May 23-27, 2004.
- 34) "Ink Jet Printing of Cationized Cotton with Reactive Inks", XVII FLAQT Congress, São Paulo, Brazil, August 4-7, 2004, presented August 5. Invited presentation.
- 35) "Peracids for enhanced cotton bleaching", XVII FLAQT Congress, São Paulo, Brazil, August 4-7, 2004, presented August 7. Invited presentation.
- 36) "Bleaching of Knitted Cotton Fabrics with Novel Cationic Peroxide Activators", 2<sup>nd</sup> National Textile Auxiliaries Congress, Bursa, Turkey, September 27-28, 2004, presented by Nevin Gürsoy.
- 37) "Use of Cationized Cotton for Textile Effluent Color Removal", poster at 2004 AATCC International Conference & Exhibition, Greenville, SC, September 13 - 17, 2004, P.J. Hauser and J.K. Reid.
- 38) "Bleaching of Cotton with Activated Peroxide Systems", 2004 AATCC International Conference & Exhibition, Greenville, SC, September 13 - 17, 2004, S. Lim, J.J. Lee, D. Hinks and P.J. Hauser. Presented by D. Hinks on September 17.
- 39) "Coating and Lamination", IFAI Expo 2004, Pittsburgh, PA, October 24- November 1, 2004, presented October 28. Invited presentation.
- 40) "Ionic Crosslinking of Cellulose", Textile Institute's 84<sup>th</sup> World Conference, Raleigh North Carolina, March 22-25, 2005, M. Bilgen, P.J. Hauser, C.B. Smith. Presented by Mustafa Bilgen.
- 41) "Advances and Trends in Textile Wet Processing Chemicals", Ekoteks Dyeing and Finishing Symposium, Istanbul, Turkey, September 28, 2005. Invited presentation.
- 42) "Plasma Systems for Textile Processing", Fall 2005 ITT Textile Advisory Committee Meeting, Raleigh, NC, November 2, 2005. Invited presentation.
- 43) "Novel Method for Efficient Decolorization of Waste Water Using Cationic Bleach Activator/Hydrogen Peroxide Systems", International Fiber Conference 2006, Seoul, Korea, May 31, 2006. P.M. Saunders, D. Hinks, P.J. Hauser, presented by P.J. Hauser.
- 44) "Novel Cationic Bleach Activators and Their Hydrolytic Properties", International Fiber Conference 2006, Seoul, Korea, May 31, 2006, J.J. Lee, S.H. Lim, D. Hinks, P.J. Hauser, presented by J.J. Lee.
- 45) "Effect of Alcohol Type Used for Synthesis of Polycation on WRA Performance of Ionic Crosslinked Cotton Fabric", 1<sup>st</sup> International Textile & Textile Machinery Congress, Istanbul, Turkey, June 1, 2006, U.K. Sahin, N.C. Gursoy, P.J. Hauser, and C.B. Smith, presented by U.K. Sahin.

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- 46) "Effect of Substrate Form, Treatment Method and Gaseous Media on Carboxymethyl Content of Cotton", 1<sup>st</sup> International Textile & Textile Machinery Congress, Istanbul, Turkey, June 1, 2006, U.K. Sahin, P.H. Vargantwar, N.C. Gursoy, P.J. Hauser, and C.B. Smith, presented by U.K. Sahin.
- 47) "Ionic Crosslinking – A Novel Method of Fabric Stabilization", International Fiber Conference 2006, Seoul, Korea, June 3, 2006, P. H. Vargantwar, U.K. Sahin, B. Smith, P.J. Hauser, presented by P.H. Vargantwar.
- 48) "Effect of Carboxymethylation Parameters on WRA Performance of Cotton Fibers", 6<sup>th</sup> Autex Conference, Raleigh, NC, June 13, 2006, U.K. Sahin, P.J. Hauser, C.B. Smith, and N.C. Gursoy, presented by U.K. Sahin.
- 49) "Textile Wet Processing", Workshop sponsored by Sahara Group, Cairo, Egypt, July 10 – 12, 2006. Invited presentation.
- 50) "Efficient Decolorization of Dye Bath Wastewater Using a Novel Cationic Bleach Activator/Peroxide System", 2006 AATCC International Conference & Exhibition, Atlanta, GA, October 31 – November 2, 2006, P. Saunders, D. Hinks, P.J. Hauser, presented by P.J. Hauser.
- 51) "Wrinkle Resistant Fabrics by Ionic Cross-linking", XVIII FLAQT Congress, Buenos Aires, Argentina, November 7 – 10, 2006, P. H. Vargantwar, P.J. Hauser, C.B. Smith, M. Bilgen, presented by P.J. Hauser. Invited presentation.
- 52) "Advances in Peroxide Activators", 4<sup>th</sup> International Conference of the Textile Research Division of the National Research Centre, Cairo, Egypt, April 15 – 17, 2007. Invited presentation.
- 53) "Improving Textiles with Cyclodextrins", 4<sup>th</sup> International Conference of the Textile Research Division of the National Research Centre, Cairo, Egypt, April 15 – 17, 2007. A.E. Tonelli, presented by P.J. Hauser.
- 54) "Effects of Alkaline Treatments on Physical and Dyeing Properties of Cotton Woven Fabrics", 2007 AATCC International Conference & Exhibition, Charleston, SC, October 2 - 4, 2007, P.J. Hauser, A. Gudac, presented by P.J. Hauser.
- 55) "Textile Wet Processing", IT3 Training Seminar, Medellin, Colombia, January 28 – February 8, 2008. (invited presentation)
- 56) "Functionalized Textiles", 6<sup>th</sup> Annual Research Open House, NC State University College of Textiles, Raleigh, NC, April 21, 2008. (invited presentation)
- 57) "Atmospheric Pressure Plasma", ITT Technical Advisory Committee Spring Meeting, Raleigh, NC, April 23, 2008. (invited presentation)
- 58) "Polymerization of Fluorocarbon Monomers onto Cotton with Atmospheric Pressure Plasma", Advances in Colorants, Chemicals, Finishes and Fibrous Materials, AATCC Symposium, Greenville, SC, June 3 – 4, 2008 (invited presentation)
- 59) "Bamboo Fibers", FTC Workshop – Green Buildings and Textiles, Washington, DC, July 15, 2008 (invited presentation)
- 60) "Atmospheric Pressure Plasma Treatments for Enhanced Value Textiles", XIX Latin American Congress of Textile Specialists, Santiago, Chile, October 14 - 17, 2008 (invited presentation)
- 61) "Atmospheric Pressure Plasma Treatments for Enhanced Value Textiles", 1<sup>st</sup> International Conference on Sustainable Textiles", Wuxi, China, October 21 – 24, 2008 (invited presentation)
- 62) "Atmospheric Pressure Plasma Treatments for Enhanced Value Textiles", AATCC International Conference, Myrtle Beach, SC, March 10 – 12, 2009 (invited presentation)



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- 63) "Cationic Cotton and Wet Processing Research at NCSU", AATCC Piedmont Section Technical Meeting, Raleigh, NC, November 13, 2009 (invited presentation)
- 64) "Atmospheric Pressure Plasma Treatments for Enhanced Value Textiles", AATCC Global Conference and Exhibition 2010, Mumbai, India, January 28 – 30, 2010 (invited presentation and moderator)
- 65) "Effects of Alternative Ionic Crosslinking Methods on Physical Performance of Cotton Fabric", AATCC International Conference, Atlanta, GA, May 18 – 20, 2010
- 66) "Synthesis, Characterization, and Evaluation of Novel Phosphorus-Based Flame Retardant Monomers for Plasma-Induced Graft Polymerization", NTC Forum, September 12-14, 2010, Greenville, SC, Brian Edwards, Ahmed El-Shafei, and Peter Hauser, presented by Brian Edwards.
- 67) "Using Metal Salts as Cationic Crosslinking Agents in Treatment of Cotton Fabric", 5<sup>th</sup> International Textile, Clothing & Conference, Dubrovnik, Croatia, October 3 – 6, 2010 (presented by Nevin Gürsoy)
- 68) "Atmospheric Pressure Plasma Treatments for Enhanced Value Textiles", 7<sup>th</sup> International Conference of the Textile Research Division of the National Research Centre, Cairo, Egypt, October 10 – 12, 2010 (invited presentation and plenary speaker)
- 69) "Cationic Cotton Dyeing: Effects on Lightfastness", First ASTM International Conference on Light and Weatherfastness, Mumbai, India, January 21, 2011 (invited presentation)
- 70) "Natural vs Manufactured and Organic vs Sustainable", SPESA Expo, Atlanta, GA, May 19, 2010, Peter Hauser (invited presentation)
- 71) "Sustainable Cotton Dyeing", International Conference on Eco-Dyeing/Finishing and Green Chemistry, Hangzhou, China, June 8-11, 2011 (invited presentation and plenary speaker)
- 72) "The Effects of QAC Antimicrobials on the Rehabilitation Performance of Burn Pressure Garments", International Congress of Innovative Textiles, Istanbul, Turkey, October 20-22, 2011 (presented by Nilufer Varan)
- 73) "Personal Perspectives of ITMA – Barcelona 2011: Dyeing and Finishing", AATCC Piedmont Section Technical Program, Concord, North Carolina, October 27, 2011 (invited presentation).
- 74) "Towards Low Environmental Impact Preparation of Cotton", 11th Asian Textile Conference, Daegu, Korea, November 1-4, 2011, Changhai Xu, David Hinks, Min Li, Ahmed El-Shafei, Peter Hauser, Mary Ankeny, Kaitlyn Lee, (invited presentation, presented by David Hinks)
- 75) "Dual Sided Fabric Finishing via Plasma", AATCC/STRC Sustainability, Innovation, and Opportunity in the Textile Industry, Pawleys Island, South Carolina, May 20-22, 2012, Peter Hauser and Priyadarshini Malshe (invited presentation, presented by Peter Hauser)
- 76) "Sustainability in Textiles: Where are we now?", 1<sup>st</sup> International Conference on Marketplace Advantage through Innovative Processes, Testing, and Quality Control, Shanghai, China, June 7, 2012 (keynote presentation).
- 77) "Dual Sided Fabric Finishing via Plasma", 1<sup>st</sup> International Conference on Marketplace Advantage through Innovative Processes, Testing, and Quality Control, Shanghai, China, June 8, 2012 (invited presentation).
- 78) "Sustainability in Textiles: Where are we now?", 2012 International Cooperation of Science and Technology, Zhejiang, China", Hangzhou, China, October, 25, 2012 (keynote presentation).



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- 79) "Dual Sided Fabric Finishing via Plasma", Performance Textiles: Technologies and Testing, IFAI Expo America 2012, Boston, Massachusetts, November 8, 2012 (invited presentation).
- 80) "Sustainable Cotton Dyeing", 64<sup>th</sup> Southeastern Regional Meeting of the American Chemical Society, Raleigh, North Carolina, November 17, 2012 (invited presentation).
- 81) "Sustainability in Textiles: Where are we now?", 2013 AATCC International Conference, Greenville, SC, April 11, 2013 (invited presentation).
- 82) "Rehabilitation Performance Studies of Burn Pressure Garments with Antimicrobial Triclosan Chemical Agents", 2013 AATCC International Conference, Greenville, S.C., USA. April 9-11, 2013, N.Y. Varan, W.M. King and P.J. Hauser (presented by N.Y. Varan).
- 83) "Advances in Sustainable Textile Wet Processing", XXI Congreso Latinoamericano de Quimica Textil, Medellin, Colombia, September 4, 2013 (invited presentation).
- 84) "Multifunctional Textiles for Military Applications", International Conference on Advances in Fibers, Finishes, Technical Textiles and Nonwovens, Mumbai, India, October 1-2, 2013 (keynote presentation).
- 85) "New Textile Chemical Strategies for Reducing Energy and Water: Scope and Limitations", 12<sup>th</sup> Asian Textile Conference, Shanghai, China, October 23-26, 2013, D. Hinks, M. Li, S. Fu, G. Wang, C. Xu, and P.J. Hauser (presented by D. Hinks).
- 86) "Enhancing Fabric Properties with Atmospheric Pressure Plasma", Functional Finishes and Coatings for Performance Textiles, IFAI Expo America 2013, Orlando, Florida, October 24, 2013 (invited presentation).
- 87) "AATCC Colorfastness Test Methods for Natural Dyes", International Workshop on Natural Dyes, Hyderabad, India, March 5, 2014 (plenary presentation).
- 88) "Isolation, Characterization, and Application of Tobacco Extracts to Cotton", International Workshop on Natural Dyes, Hyderabad, India, March 5, 2014, H.S. Freeman, K.M. York, P.J. Hauser, and K.R. Beck (invited presentation given by P.J. Hauser).
- 89) "Frontier and Future of Eco-textiles", International Conference on Engineering, Science & Technology, Beijing, China, June 3, 2014 (Invited presentation).
- 90) "Innovations in Dyeing, Printing, and Finishing Machinery", Textile World Innovation Forum 2014, Atlanta, Georgia, September 15, 2014 (invited presentation).
- 91) "The Effects of Triclosan Antimicrobials on the Physical Thermophysiological and Mechanical Properties of Pressure Garments in Burn Scar Treatment", 15<sup>th</sup> International Materials Symposium, Denizli, Turkey, October 15-17, 2014, N.Y. Varan, M.W. King, and P.J. Hauser (presented by N.Y. Varan).
- 92) "Advances in Sustainable Textile Wet Processing", 2015 AATCC International Conference, Savannah, Georgia, March 25, 2015.
- 93) "Sustainable Cotton Dyeing", AATCC Sustainability Symposium, Hangzhou, China, June 12, 2015. (Keynote address)
- 94) "Research at TECS Department", Eastman Global Innovation Conference, Kingsport, TN, September 13, 2015 (poster presentation by P.J. Hauser).

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- 95) "ITMA 2015 Innovations in Textile Wet Processing", 2015 Textile World Innovation Forum, Charlotte, NC, December 2-3, 2015 (invited presentation).
- 96) "ITMA 2015: Advances in Textile Wet Processing", 2016 AATCC International Conference, Williamsburg, VA, April 19-21, 2016.
- 97) "Ultraviolet Curable Biofilm Resistant Textile Finishes", 2017 AATCC International Conference, Wilmington, NC. March 28-30, 2017.